



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

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08/196,812 02/02/94 NILSEN

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EXAMINER
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MIG, D

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ART UNIT	PAPER NUMBER
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2502

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DATE MAILED: 08/04/94

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☒ Responsive to communication filed on 7/25/94 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), 0 days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- ☐ Notice of References Cited by Examiner, PTO-892.
- ☐ Notice of Draftsman's Patent Drawing Review, PTO-948.
- ☐ Notice of Art Cited by Applicant, PTO-1449.
- ☐ Notice of Informal Patent Application, PTO-152.
- ☐ Information on How to Effect Drawing Changes, PTO-1474.
- ☐

Part II SUMMARY OF ACTION

1. ☒ Claims 47-92 are pending in the application.

Of the above, claims \_\_\_\_\_ are withdrawn from consideration.

2. ☒ Claims 1-46 have been cancelled.

3. ☐ Claims \_\_\_\_\_ are allowed.

4. ☒ Claims 47-92 are rejected.

5. ☐ Claims \_\_\_\_\_ are objected to.

6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. ☐ Formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).

10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved; ☐ disapproved (see explanation).

12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.

13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

EXAMINER'S ACTION

1. The following is a combination of the last Office Action's questions, Applicant's answers and further Office comments, now based on claim 47.

In claim 47, lines 14-21, the inverter circuit is characterized by certain phenomena: certain inverter AC voltage frequency parameters are negligible/low at certain DC source terminals. Why? A reason has been provided: a "high filtering effect" is associated with C1 and C2, which is something entirely clear to a person possessing ordinary skill in the art according to Applicant's remarks. The reason is accepted since it makes sense that a low pass filter comprising C1 and C2 would stop high frequencies from the inverter from being fed back to the rectifier. Where in the specification is this reason given? The phenomena is not described in the specification, except for the claim language, and the reason must be construed using ordinary skill in the art. Is it an advantage (By "advantage", 35 U.S.C. 101 is referred to. In particular: "Whoever invents ... any new and useful machine ... or any new and useful **improvement thereof**, may obtain a patent therefore ... ." is referred to, where an "improvement" is considered to be an "advantage".) provided by the present circuit? No, "it does not define any particular "advantage"", according to Applicant's remarks. If it is provided by certain features of the present circuit, what are the features? It is provided by a low pass filter of the present circuit. Answers to the foregoing questions will provide information as to whether or not each of the respective elements of the present circuit can or can not be construed to cover the

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claimed phenomena. Applicant, however, does not intend to cover any one or more "phenomena". Instead, Applicant intends to cover the particular arrangements (or structures) expressly defined by the various claims; each of which arrangements consists of a combination of plural individual elements; each individual element being defined by its function and its minimally necessary characterizing features.

Now, it is pointed out that Applicant's practice of representing a feature that helps characterize the invention defined by a claim, by using functions and minimal characterizing features of elements that form arrangements, is not proper if the feature does not define any particular advantage. This is because of 35 U.S.C. 101. One can get a patent for a "useful improvement" but not for a feature that does not define any particular advantage. Applicant may have misunderstood how "advantage" was being used in the Office Action. In other words, does the claimed phenomena constitute an useful improvement? Although the means responsible for the phenomena are construed without the answer to the above rephrased question, such an answer is sometimes provided in association with identification of what means are provided to provide a useful improvement and might have helped to construe what covered the claim language. It is now necessary, however, to determine if the claimed feature indeed represents no useful improvement.

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In general, it is proper to cover arrangements as Applicant intended to, though. The minimally "necessary" characterizing features of the elements are those necessary to construe coverage of the performance of the elements function.

New question: if the inverter circuit is "characterized" as said, then how do the capacitors C1 and C2 of the DC source provide a function performed by the inverter circuit? It seems the characterization is of the "arrangement" or a part of it greater than the inverter and somehow including the capacitors.

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 C.F.R. § 1.75(d)(1) and M.P.E.P. § 608.01(1). Correction of the following is required: Antecedence for all claimed features should appear in the specification, at least as they appear in the claims; e.g. in the Summary section.

It is assumed that one of ordinary skill in the art would understand how the circuit performed the functions of the claims, however, the specification must say that the circuit performs the claimed functions.

Nevertheless, some additional indication of the importance of the claimed functions is necessary to make it apparent that novelty (newness and usefulness as in 35 U.S.C. 101) is pointed out by them (when the novelty is not obvious). And, it is

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usually not obvious why Applicant's typical claimed phenomena of existences of parameters of certain magnitudes and shapes are novel. In other words, it is not apparent (from the specification, even with some construing based on knowledge in the art) why the claimed phenomena are believed to possess a novel nature.

3. Claims 47-92 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 47, specific defects are mentioned above (The inverter does not seem to be characterized as claimed.). For all of the claims it is not clear where the claim language is explained in the specification and it is therefore not apparent how to construe what covers what is claimed and so the claims do not particularly point out what is claimed. It is certainly not clear what the invention is, based on these claims. Given that an invention is novel, how do the claims particularly point out what Applicant regards as novel if what is claimed does not define any particular advantage? The second paragraph of 35 U.S.C. 112 requires that Applicant particularly points out something novel. It is not evident from the specification and claims that Applicant has pointed out any invention at all.

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4. Only the above discussion is provided mostly with respect to just one claim. Discussion of all the claims is represented by the above basic discussion since the claims possess similar (uncovered using any known construing process/not representative of anything new or useful/indefinite) language. The corresponding issues for the other claims should be apparent.

5. If there is novelty to be pointed out then any amendment should be directed to doing so by making the specification explain any novel invention using the claim language.

6. 35 U.S.C. § 101 reads as follows:

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title".

7. Applicant's amendment necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION


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IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Mis whose telephone number is (703) 308-4907.

  
DAVID MIS  
EXAMINER  
GROUP ART UNIT 252

dm  
August 3, 1994